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ABSTRACT

This report contains a description and evaluation of the College Bound Program. It was designed to enhance the cognitive abilities of 9,300 high school students who were eligible for Title I funds. The program was conducted in 24 high schools with approximately one fourth of the subjects at each grade level. The evaluation was designed to investigate the effectiveness of the reading, mathematics, science, social science, and bilingual components of the program. Test results revealed that the project improved standardized test scores in all areas. Statistically significant gains were obtained for the reading, mathematics, social studies, science, bilingual reading, and bilingual science components for all grade levels and for the ninth grade bilingual social science component. (Author/AM)

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EVALUATION REPORT

Function No. 09-59609

THE COLLEGE BOUND PROGRAM

EVALUATION PERIOD

SCHOOL YEAR 1974- 1975

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
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ROBERT E. DOYLE, Ph. D.

An evaluation of a New York City School district  
educational project funded under Title I of the  
Elementary and Secondary Education Act of 1965  
(PL 89-10) performed for the Board of Education  
of the City of New York for the 1974-75 school year.

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## CHAPTER I - THE PROGRAM

The College Bound Program was designed to enhance the cognitive growth of 9300 disadvantaged high school students who were eligible for Title I funds. The target population included 260 students who were linguistically isolated. The program was conducted in 24 high schools, and approximately one-fourth of the subjects were in each grade level. New entrants to the program were selected on the basis of having the potential to succeed in college, but whose Spring 1974 reading scores on the Stanford Advanced Reading Test were below grade level. The program was in operation from September 1, 1974 to June 30, 1975 and provided an additional 248.4 teachers, 67 counselors, 24 secretaries, 46 family workers and 187 paraprofessionals to supplement the regular staffs in the target schools. Specifically, the program was designed to improve: (a) the reading and language arts skills of all participants; (b) the mathematical skills of participants taking 9th and 10th grade mathematics; (c) the reading skills in social studies of participants identified as needing remedial help by the STEP for social studies; (d) the reading skills in science of participants identified as needing remedial help by the Cooperative Science Test; and (e) the language development, reading and mathematics skills of linguistically isolated participants.

In order to accomplish these objectives, participants attended supplementary classes in reading and mathematics, and special classes in social studies and science. Linguistically isolated pupils were provided courses in ESL and instruction in mathematics, language, science or social studies in their native language. All special and supplementary classes emphasized individual prescriptive instructional modalities and had average class rosters of 20. Educational assistants were assigned to classes and tutors were available for students requiring additional help. To further enhance the effort, school counselors were assigned a ratio of 150

students to assist these disadvantaged youngsters in overcoming problems associated with their individual development, family workers were available to insure effective home-school cooperation, and field trips were conducted to broaden the experiential learning base and to raise motivational levels.

## CHAPTER II - EVALUATIVE PROCEDURES

This section specifies the evaluation objectives, the data collection procedures, the instrumentation, the methods of data treatment, and the population sample.

### Evaluation Objectives:

There were five evaluation objectives for this program which were specified in the original evaluation design stated August, 1974, and modified on September 12, 1974, October 17, 1974, February 28, 1975, and June 5, 1975.

These objectives are:

1. to determine whether, as a result of participation in the Supplementary Reading Program, the reading grade of the students will show a statistically significant difference between the real post-test score and the anticipated post-test score;
2. to determine whether, as a result of participation in the Supplementary Mathematics Program, the mathematics grades of the students will show a statistically significant difference between the real post-test score and the anticipated post-test score;
3. to determine whether, as a result of participation in the science and social studies components, students will show a statistically significant difference between pre-test and post-test raw scores;
4. to determine whether as a result of participation in the bilingual component, students will show a statistically significant difference between pre-test and post-test scores on standardized academic and reading tests;
5. to determine the extent to which the program as actually carried out, coincided

with the program as described in the project proposal.

#### Data Collection Procedures

All students were pre-tested on the appropriate instruments in October, 1974. Students who were absent at the pre-test time were pre-tested on an individual basis. Students known to be dropping out, graduating, or transferring at the end of the fall semester were post-tested during the month of January 1975. New entrants were pre-tested at the same time. All students remaining in the program throughout the spring semester were post-tested during May 1975. The data analysis reflects the deviations in the treatment periods.

The OEE Evaluator made twenty-four site visits to schools conducting the College Bound Program in order to assess the implementation of the program.

#### The Instrumentation

Appropriate levels of the California Achievement Tests (CAT) in Reading and Mathematics were administered for the pre-test and post-test data required for evaluation objectives 1 and 2. The Cooperative Science Test (CST) and the STEP, Series II, Social Studies (STEP), were administered to obtain the data for evaluation objective 3. For evaluation objective #4, the Stanford Achievement subtests (SAT) in Reading Comprehension and Mathematics Computations, and the Cooperative Inter-American Tests (CIAT) in Natural Sciences, Social Studies and Spanish Reading were the instruments employed.

#### Methods of Data Treatment

The data for the Reading and Mathematics Components were analyzed by the "real (treatment) post-test vs anticipated (without treatment) post test" method as specified in the modified evaluation design using a correlated t ratio with historical regression, except for the data collected for the 12th grade students

on the California Achievement Test in Reading. For this latter group, the data were analyzed by a "correlated Z ratio on percentile scores for a modified real vs. anticipated gain".

The remaining data were analyzed by means of a correlated t tests between pre-test and post-test raw scores.

All data were analyzed by grade level, and data utilizing the raw scores were grouped into full year and part year treatment groups.

#### THE SAMPLE

All of the participants in each component comprised the population for this study, however complete test data were not available for all the subjects. The test sample excluded those students who were: dropped from the program; chronically truant; no longer residents of New York City; transferred to another school; absent on the pre-test or post-test testing periods. Furthermore students who had invalid test scores, or graduated early without taking the post-test, or who had incomplete test scores could not be included in the test sample. Table 1 below portrays the total number of participants in each component as well as the test sample available. The Data Loss Form in the appendix gives a complete accounting for each subject by program component and grade level.

TABLE 1: THE POPULATION AND TEST SAMPLE BY COMPONENT

| <u>COMPONENT</u> | <u>POPULATION</u> | <u>TEST SAMPLE</u> | <u>%</u> |
|------------------|-------------------|--------------------|----------|
| Reading          | 9040              | 7589               | 83.9     |
| Mathematics      | 6090              | 4864               | 79.9     |
| Social Studies   | 5500              | 4351               | 79.1     |
| Science          | 3752              | 3145               | 83.8     |
| Bilingual        | 260               | 203                | 78.1     |

CHAPTER III -- THE FINDINGS

This chapter reports on the findings germane to each evaluation objective, discusses the degree that the program was serving the needs of the target population and implementing the project proposal; comments on the facilities and materials utilized in the project, and reviews the implementation of the recommendations of the previous years study.

Evaluation objectives 1 and 2 were designed to investigate the effectiveness of the reading and mathematical components by comparing the real post-test and the anticipated post-test scores on various subtests of the California Achievement Test. Table 2 below summarizes the results for these two objectives using the grade equivalent scores.

An analysis of Table 2 shows that the reading grades improved from 1.3 to 1.5 years and that the mathematics skills improved from 1.2 to 1.9 years

TABLE 2. PRE AND POST TEST RESULTS ON THE CALIFORNIA ACHIEVEMENT TESTS

| Grade | <u>Reading</u> |       | <u>Computations</u> |       | <u>Problem Solving</u> |       |
|-------|----------------|-------|---------------------|-------|------------------------|-------|
|       | Pre            | Post  | Pre                 | Post  | Pre                    | Post  |
| 9     | 7.1            | 8.4*  | 7.5                 | 9.2*  | 7.3                    | 8.6*  |
| 10    | 8.3            | 9.6*  | 8.1                 | 10.0* | 8.2                    | 9.6*  |
| 11    | 9.0            | 10.5* | 8.3                 | 10.0* | 8.8                    | 10.0* |
| 12    | -              | -     | 8.0                 | 9.7*  | 8.7                    | 9.9*  |

\* Significant at the .001 Level

Table 3 summarizes the reading results for the 12th grade using the percentile scores for those students who received 1 term and 1 year of treatment. Both treatment groups demonstrated statistically significant mean percentile gains.

Evaluation objective 3 was designed to investigate the effectiveness of the science and social studies components by comparing the pre-test and post-test results on the Cooperative Science test and the STEP for Social Studies. Table 4 below summarizes the results for these subject areas.

TABLE 3. PRE AND POST TEST RESULTS IN READING FOR THE 12th GRADE STUDENTS

| Treatment | Pre-Test |      | Post-Test |        |
|-----------|----------|------|-----------|--------|
|           | Mean     | S.D. | Mean      | S.D.   |
| 1 Term    | 34.3     | 19.9 | 47.2      | 23.6 * |
| 1 Year    | 36.0     | 22.2 | 42.8      | 22.9 * |

\*Significant at the .001 level

An analysis of Table 4 demonstrates that the social studies and science scores of the participants improved significantly. The mean social studies raw score improved from 1.9 to 5.6 points and the mean science score improved from 4.3 to 5.7 points. Since the 1 term groups varied from 139 to 190, and the 1 year groups varied from 635 to 1145, comparisons between the two treatment periods should be made with extreme care.

TABLE 4. PRE AND POST TEST RESULTS ON THE STEP-SOCIAL STUDIES AND THE COOPERATIVE SCIENCE TEST

| Grade/Treatment | Social Studies |      |      |      | Science |      |      |      |
|-----------------|----------------|------|------|------|---------|------|------|------|
|                 | Pre            |      | Post |      | Pre     |      | Post |      |
|                 | Mean           | S.D. | Mean | S.D. | Mean    | S.D. | Mean | S.D. |
| 9 - 1 Term      | 20.0           | 6.2  | 23.8 | 5.8* | -       | -    | -    | -    |
| 9 - 1 Year      | 22.6           | 6.6  | 26.5 | 6.7* | 20.2    | 6.8  | 24.5 | 7.6* |
| 10 - 1 Term     | 25.2           | 7.3  | 30.8 | 7.3* | -       | -    | -    | -    |
| 10 - 1 Year     | 25.9           | 7.6  | 30.2 | 7.0* | 23.4    | 7.9  | 28.1 | 8.1* |
| 11 - 1 Term     | 27.5           | 7.6  | 32.6 | 8.2* | -       | -    | -    | -    |
| 11 - 1 Year     | 30.0           | 7.4  | 33.1 | 7.4* | 26.9    | 9.0  | 32.6 | 8.7* |
| 12 - 1 Term     | 35.6           | 6.4  | 39.2 | 6.0* | -       | -    | -    | -    |
| 12 - 1 Year     | 33.6           | 7.6  | 35.5 | 7.0* | -       | -    | -    | -    |

\*Significant at the .001 level

Evaluation objective 4 was designed to measure the effectiveness of the bilingual program. Tables 5 and 6 summarize the statistical results for these objectives.

TABLE 5. PRE AND POST TEST RESULTS IN READING AND MATHEMATICS FOR THE BILINGUAL STUDENTS

| Grade | Reading |      | Mathematics |          |
|-------|---------|------|-------------|----------|
|       | Pre     | Post | Pre         | Post     |
| 9     | 4.5     | 5.4* | 5.9         | 6.4 N.S. |
| 10    | 4.8     | 5.8* | 6.5         | 6.8 N.S. |

\*Significant at the .001 level

N.S. Not Significant

TABLE 6. PRE AND POST TEST RESULTS IN SPANISH READING, SCIENCE AND SOCIAL STUDIES FOR THE BILINGUAL STUDENTS

| Grade | Spanish Reading |      |      |      | Social Studies |      |      |         | Science |      |      |      |
|-------|-----------------|------|------|------|----------------|------|------|---------|---------|------|------|------|
|       | Pre             |      | Post |      | Pre            |      | Post |         | Pre     |      | Post |      |
|       | Mean            | S.D. | Mean | S.D. | Mean           | S.D. | Mean | S.D.    | Mean    | S.D. | Mean | S.D. |
| 9     | 57              | 12   | 65   | 11*  | 46             | 13   | 55   | 13*     | 60      | 15   | 64   | 14*  |
| 10    | 59              | 12   | 66   | 12*  | 66             | 13   | 69   | 13 N.S. | 48      | 13   | 55   | 14*  |

\*Significant at the .001 level

N.S. Not Significant

Significant improvement in reading, Spanish reading and science was found for both grade levels. Significant improvement was not demonstrated for either grade in mathematics; and the ninth grade demonstrated improvement in social studies which was statistically significant while the improvement for the tenth grades was not.

Complete results for these first four evaluation objectives are contained in the MIR forms found in the Appendix.

Evaluation objective #5 was designed to determine the extent to which the implemented program actually coincided with the project proposal. This objective was assessed by means of twenty-four site visits made to the field schools. Observations were made about the population being serviced, the instructional and supportive service program, and the facilities and materials employed.

#### THE TARGET POPULATION

The program was in operation in each of the specified schools and was servicing disadvantaged students in the 9th, 10th, 11th, and 12th grades. Although the funding for the program is on a yearly basis, students are serviced over a four year period, and the guidelines for selecting entering subjects has been modified over the past several years. The current criteria selected students who were below grade level.

#### THE INSTRUCTIONAL PROGRAM

The site visits revealed that all the schools had implemented the specified instructional program. In the majority of cases, the classroom instructors were individualizing instruction and one excellent example of peer assisted instruction was noted. In a small minority of cases, the assigned work appeared to have little relationship to identifiable weaknesses and diagnostic results were not evidenced. A number of teachers had little or no formal training in reading. Educational assistants were observed generally working with individual and small groups of students. In a few instances, the aids were observed performing little more than routine clerical tasks and attempting to look busy.

The reading workshops, the efforts of the Reading coordinators and the teacher trainers, the introduction of separate supplementary classes, and the

assignment of special teachers appears to have had salutary outcomes. However, the assignment of different teachers each semester, or cycle, is a deterrent, and there appears to be a lack of communications between the "regular" and "the extra" classroom teachers.

Students interviewed in each of schools visited reported very positive feeling about the program. However, they questioned: why the supplementary classes were totally individualized; why teachers did not vary instructional methods in these classes; why they could not take more electives; and whether or not the supplementary classes would be required if they reached grade level. A minority of students were not aware of the reasons they were taking the supplementary classes, and few of those reportedly knew their achievement scores or diagnosed difficulties.

#### ADMINISTRATIVE AND SUPPORTIVE SERVICES

The program coordinators advised school administrators on the guidelines for implementing the program; administered the budget; ordered appropriate materials; arranged suitable field trips; coordinated the standardized testing; screened new entrants; and performed other coordinative functions. Generally they had excellent cooperation from administrators. However, there were some problems: some teachers were not trained for the assigned subject area; one department chairman did not agree to follow the teaching assignment guidelines; some teachers did not have a room to utilize as a laboratory; and in the overutilized schools the offices tended to be very crowded. These situations were beyond the scope of the coordinators' authority, but they were aware of these shortcomings and were attempting to overcome them.

Reading coordinators were assigned to 10 schools and provided training for teachers and paraprofessionals; evaluated and selected appropriate instructional materials; coordinated the diagnostic testing and prescriptive instruction; and

assisted in coordinating reading with other subject areas. In the fourteen schools not funded for Reading coordinators, 3 teacher trainers were assigned in the Spring semester to provide similar services. The teacher trainers appeared to have a significant impact on the schools and enhanced interschool exchanges of ideas and techniques.

The school counselors facilitated the academic adjustment and remediated the emotional concerns of the students through individual counseling and group methods. As part of their motivational techniques, they conducted guidance lessons on orientation, career exploration, college selection and application processes, and sources of financial aid.

The teachers reported that counselors were accessible, highly motivated and of great assistance to them. The majority of students stated that their counselors were extremely helpful; however a few students reported that their counselors appeared to be more interested in programatic concerns than they were in resolving personal problems.

Family assistants provided information to parents about the projects activities, goals and requirements, and they contacted parents of students who were frequently late or absent. They were under the supervision of the counselor and served as the liaison person between the school and the home.

Field trips were conducted which encompassed a range of activities from attending the legitimate theater to visiting out-of-state colleges. Scheduling these trips appeared to be a very time consuming task for coordinators who often had to iron out logistic snafus with bus companies, parent consent forms, and advance funding. In spite of these difficulties, the trips appeared to have a profound influence on the participants.

### FACILITIES AND MATERIALS

The physical facilities varied from school to school. Many of the New York City high schools are overutilized. These conditions obviously mitigate against good facilities on all sites. Nevertheless, the facilities were adequate in most instances. Most schools had self-contained laboratory classrooms for the supplementary classes, a few did not. In the latter schools, the fact that teachers had to cart materials from one room to another was a serious shortcoming. The office space for the coordinators and the counselors was good in 50% of the schools visited; adequate but in need of room dividers in 25% of the sites; and barely adequate to poor in the other 25%.

The staff reported that they were able to obtain appropriate instructional materials.

### PREVIOUS RECOMMENDATIONS

The evaluation report conducted for the 1973-1974 academic year made three recommendations. These were:

1. that the evaluation of the reduced class size in certain subject areas not be evaluated by a standardized reading test;
2. that mathematics coordinators be appointed to assist teachers in the development of the supplementary math program;
3. that schools be allowed flexibility in using assigned paraprofessional positions as either family assistants or educational aids.

Recommendation #1 has been carried out. These courses were evaluated by entirely different instruments this year. Recommendation #2 was not directly implemented; however, two mathematics teacher trainers were funded, workshops and inservice courses were instituted, and major changes were made in the staffing pattern and in the content of the supplementary mathematics classes. Recommendation #3 was not incorporated. Contractual distinctions between family assistants and

educational assistants mitigated against flexibility of assignments and it was felt that one family assistant for each counselor would be a sufficient ratio, and that educational assistants were an important component in the program design.

STUDIES OF THE COLLEGE BOUND ALUMNI AND STUDENTS

The major long term objective of the College Bound Program is to prepare disadvantaged students for college. Each year the staff conducts a study of the number of students who graduated, the number who were accepted into college and the amount of financial aid that they received. The data for the past four years is summarized in the table below.

TABLE 7: ACCEPTANCE RATE AND FINANCIAL AID RECEIVED BY GRADUATES.

|                    | <u>Year of Graduation</u> |             |             |             |
|--------------------|---------------------------|-------------|-------------|-------------|
|                    | <u>6/71</u>               | <u>6/72</u> | <u>6/73</u> | <u>6/74</u> |
| Total Graduated    | 2170                      | 2246        | 2132        | 2162        |
| Accepted by CUNY   | 1233                      | 1179        | 1134        | 1252        |
| Accepted by SUNY   | 87                        | 71          | 128         | 91          |
| Accepted by Others | <u>696</u>                | <u>765</u>  | <u>688</u>  | <u>624</u>  |
| Total Accepted     | 2016                      | 2015        | 1950        | 1967        |
| % Accepted         | 93%                       | 90%         | 91%         | 91%         |
| Financial Aid      | N/A                       | 1,693,*     | 1,536,*     | 1,569,*     |

\*000 omitted

Data for the current graduating class will not be available until after this report is submitted.

In 1974 the staff conducted a study of the college retention rate of the 1971, 1972 and 1973 alumni. They discovered that 70 per cent of those who went to college from the class of '71 were still enrolled as seniors; 72 per cent of those who attended college from the class of '72 were still enrolled as juniors;

and 86 per cent of those who went to college from the class of '73 were still enrolled as sophomores.

In 1975 the staff conducted a study in 10 high schools comparing 600 College Bound students with 600 non-College Bound students who had comparable entering reading scores. They found that there was a statistically significant difference at the .01 level on five variables, and that the College Bound students: (1) had a better attendance record; (2) had fewer failures; (3) had taken more Regents and Citywide examinations; (4) had participated in more extra curricula activities; and (5) were more likely to be in an academic or college preparatory program than the control group.

CHAPTER IV

SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The test results revealed that the project did improve standardized test scores. Statistically significant gains were obtained for the reading, mathematics, social studies, science, bilingual reading, and bilingual science components for all grade levels; and for the bilingual social studies component for the ninth grade. Improved scores were obtained for the bilingual mathematics for both grades and for the bilingual social studies for grade 10. However, these later improvements were not statistically significant.

The site visits revealed that the project was staffed by personnel who were highly motivated, had strong identification with the program, knew the project's goals and implementation criteria, and cared a great deal about their students.

Several observations were made that appeared, in some instances, to detract from the project's accomplishing greater gains. The study found that: some teachers were not completely familiar with the techniques involved in individualization of instruction; some teachers have had very little formal training in reading; some paraprofessionals were not being utilized as effectively as desired; most students prefer some variation to the individualization approach; and a communication gap appeared to exist between the teachers assigned to regular classes and those assigned to the project's courses. It was further observed that: a few schools did not follow the staffing guidelines; appropriate laboratories were not available in some schools; and overcrowded and/or unpartitioned offices existed in 50% of the schools visited.

An examination of the follow-up studies conducted by the College Bound staff revealed that over 90 per cent of those who graduate from the program are accepted into college and that over 70 per cent of those who enrolled in college were still enrolled as seniors.

Another study comparing the College Bound students to similar students in 10 high schools suggests that the College Bound students are more academically oriented than those not in the program.

The test results, the site visits and the internal self studies conducted by the College Bound staff all indicate that the project is accomplishing its objectives and, in fact, is an exemplary program.

The program should be continued based upon the findings reported above. However, there are several recommendations which the project directors should consider for the future. They are:

1. Institute new staffing guidelines which require maintaining personnel in the program for at least one year so that a cadre of trained personnel is insured;
2. Reorganize the staffing pattern for Reading coordinators and teacher trainers in order to provide equal content area leadership to all the schools;
3. Expand the in-service courses and workshops for both teachers and para-professionals in the content areas and in methods of utilizing the para-professionals;
4. Encourage teaching personnel to vary their instructional modalities, experiment with other approaches such as peer assisted instruction, and develop elective modules which reinforce skill retention for those students near grade level;
5. Increase interschool visitation activities so that effective ideas and techniques are shared;
6. Explore various methods which would enhance the professional dialogue between the regular and special class personnel;
7. Provide laboratories where needed for the reading and mathematics skill courses, and room dividers where needed for counselors;
8. Empower program coordinators with more authority in selecting classroom teachers and implementing the guidelines.

CHAPTER V - EXEMPLARY PROGRAM ABSTRACT

The following components showed an excess of one month's gain for each month of treatment:

| Component Code | Activity Code | Objective Code |
|----------------|---------------|----------------|
| 608 15         | 720           | 801            |
| 608 16         | 720           | 801            |
| 609 15         | 720           | 801            |
| 609 16         | 720           | 801            |

The exemplary results obtained seem to be accounted for by the pride manifest in the participants who have identified strongly with the program. That spirit appears to be a result of the interaction of the various treatment efforts. The small classroom atmosphere, the motivation instilled by the school counselors, the supportive work of the paraprofessionals, the leadership of the coordinators and program directors, and the track record of previous College Bound students in attending and remaining in college, have nurtured the untapped desire to achieve where heretofore it was latent.

30A. Standardized Test Results for Historical Regression Design (6-Step Formula).

Function # 09-59609

The College Bound Program, 1974 - 1975

MIR # 1

| Component Code  | Activity Code | Test Used <sup>1/</sup> | Form |      | Level |      | Total N <sup>2/</sup> | Group I.D. <sup>3/</sup> | Number Tested <sup>4/</sup> | Pretest |      | Predicted Posttest Mean | Actual Posttest |      | Statistical Data    |                                     |
|-----------------|---------------|-------------------------|------|------|-------|------|-----------------------|--------------------------|-----------------------------|---------|------|-------------------------|-----------------|------|---------------------|-------------------------------------|
|                 |               |                         | Pre  | Post | Pre   | Post |                       |                          |                             | Date    | Mean |                         | Date            | Mean | Obtained Value of t | Level <sup>5/</sup> of significance |
| 6 0 8 1 5 7 2 0 |               | CAT 70<br>Read          | A    | B    | 4     | 4    | 2030                  | Gr.9                     | 1810                        | 10/74   | 7.1  | 7.7                     | 5/75            | 9.1  | 24.5                | .001                                |
| 6 0 8 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 2440                  | Gr.10                    | 2330                        | 10/74   | 8.3  | 8.9                     | 5/75            | 9.6  | 19.1                | .001                                |
| 6 0 8 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 2270                  | Gr.11                    | 1777                        | 10/74   | 9.0  | 9.6                     | 5/75            | 10.5 | 19.6                | .001                                |
| 6 0 9 1 5 7 2 0 |               | CAT 70<br>Comp.         | A    | B    | 4     | 4    | 2030                  | Gr. 9                    | 1609                        | 10/74   | 7.5  | 8.1                     | 5/75            | 9.2  | 26.4                | .001                                |
| 6 0 9 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 2440                  | Gr.10                    | 2055                        | 10/74   | 8.1  | 8.7                     | 5/75            | 10.0 | 32.6                | .001                                |
| 6 0 9 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 1210                  | Gr.11                    | 1043                        | 10/74   | 8.3  | 8.9                     | 5/75            | 10.0 | 18.7                | .001                                |
| 6 0 9 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 400                   | Gr.12                    | 157                         | 10/74   | 8.0  | 8.5                     | 5/75            | 9.7  | 8.6                 | .001                                |
| 6 0 9 1 5 7 2 0 |               | CAT 70<br>P.S.          | A    | B    | 4     | 4    | 2030                  | Gr. 9                    | 1576                        | 10/74   | 7.3  | 7.9                     | 5/75            | 8.6  | 16.2                | .001                                |
| 6 0 9 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 2440                  | Gr.10                    | 2026                        | 10/74   | 8.2  | 8.8                     | 5/75            | 9.6  | 19.5                | .001                                |
| 6 0 9 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 1210                  | Gr.11                    | 1044                        | 10/74   | 8.8  | 9.3                     | 5/75            | 10.0 | 11.2                | .001                                |
| 6 0 9 1 6 7 2 0 |               | "                       | A    | B    | 4     | 4    | 400                   | Gr.12                    | 158                         | 10/74   | 8.7  | 9.2                     | 5/75            | 9.9  | 5.6                 | .001                                |
| 6 6 7 1 5 7 2 0 |               | SAT 72<br>Read.         | A    | B    | Int   | Int  | 180                   | Gr. 9                    | 154                         | 10/74   | 4.5  | 4.9                     | 5/75            | 5.4  | 5.54                | .001                                |
| 6 6 7 1 6 7 2 0 |               | "                       | A    | B    | "     | "    | 80                    | Gr.10                    | 49                          | 10/74   | 4.8  | 5.2                     | 5/75            | 5.8  | 3.80                | .001                                |
| 6 6 8 1 5 7 2 0 |               | SAT 72<br>Math.         | A    | B    | "     | "    | 180                   | Gr. 9                    | 150                         | 10/74   | 5.9  | 6.4                     | 5/75            | 6.4  | .77                 | n.s.                                |
| 6 6 8 1 6 7 2 0 |               | "                       | A    | B    | "     | "    | 80                    | Gr.10                    | 50                          | 10/74   | 6.5  | 7.0                     | 5/75            | 6.8  | -1.35               | n.s.                                |

1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).

2/ Total number of participants in the activity.

3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the last two digits of the component code.

4/ Total number of participants included in the pre and posttest calculations.

5/ Level of statistical significance obtained (e.g.,  $p \leq .05$ ;  $p \leq .01$ ).

Function # 09 - 59609

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MTR # 2

| Component Code  | Activity Code | Test Used    | Norm |      | Level |      | Total N <sup>2/</sup> | Gr <sup>4/</sup> | Number Tested   |                          | Pretest |      |                  | Posttest |      |                  | Statistical Data   |                     |                     |
|-----------------|---------------|--------------|------|------|-------|------|-----------------------|------------------|-----------------|--------------------------|---------|------|------------------|----------|------|------------------|--------------------|---------------------|---------------------|
|                 |               |              | Pre  | Post | Pre   | Post |                       |                  | N <sup>4/</sup> | Score Type <sup>5/</sup> | Date    | Mean | SD <sup>6/</sup> | Date     | Mean | SD <sup>6/</sup> | Test <sup>7/</sup> | Value <sup>8/</sup> | Level <sup>9/</sup> |
|                 |               |              |      |      |       |      |                       |                  |                 |                          |         |      |                  |          |      |                  |                    |                     |                     |
| 6 0 8 1 6 7 2 0 |               | CAT 70 Read. | A    | B    | 5     | 5    | 300                   | Gr. 12           | 219             | 2                        | 10/74   | 34.3 | 19.9             | 1/75     | 47.2 | 23.6             | z                  | 11.36               | .001                |
| 6 0 8 1 6 7 2 0 |               | "            | A    | B    | 5     | 5    | 2000                  | Gr. 12           | 1453            | 2                        | 10/74   | 36.0 | 22.2             | 5/75     | 42.8 | 22.9             | z                  | 16.61               | .001                |
| 6 1 1 1 5 7 2 0 |               | STEP 69 S.S. | A    | B    | 3     | 3    | 200                   | Gr. 9            | 154             | 6                        | 1/75    | 20.0 | 6.2              | 5/75     | 23.7 | 5.8              | t                  | 7.44                | .001                |
| 6 1 1 1 5 7 2 0 |               | "            | A    | B    | 3     | 3    | 1167                  | Gr. 9            | 1043            | 6                        | 10/74   | 22.6 | 6.6              | 5/75     | 26.5 | 6.7              | t                  | 21.03               | .001                |
| 6 1 1 1 6 7 2 0 |               | "            | A    | B    | 3     | 3    | 200                   | Gr. 10           | 167             | 6                        | 1/75    | 25.2 | 7.3              | 5/75     | 30.8 | 7.3              | t                  | 10.13               | .001                |
| 6 1 1 1 6 7 2 0 |               | "            | A    | B    | 3     | 3    | 1435                  | Gr. 10           | 1145            | 6                        | 10/74   | 25.9 | 7.6              | 5/75     | 30.2 | 7.0              | t                  | 24.39               | .001                |
| 6 1 1 1 6 7 2 0 |               | "            | A    | B    | 3     | 3    | 300                   | Gr. 11           | 139             | 6                        | 10/74   | 27.5 | 7.6              | 1/75     | 32.6 | 8.2              | t                  | 9.15                | .001                |
| 6 1 1 1 6 7 2 0 |               | "            | A    | B    | 3     | 3    | 1098                  | Gr. 11           | 878             | 6                        | 10/74   | 30.0 | 7.4              | 5/75     | 33.1 | 7.4              | t                  | 15.30               | .001                |
| 6 1 1 1 6 7 2 0 |               | "            | A    | B    | 3     | 3    | 300                   | Gr. 12           | 190             | 6                        | 10/74   | 35.6 | 6.4              | 1/75     | 39.2 | 6.0              | t                  | 11.29               | .001                |
| 6 1 1 1 6 7 2 0 |               | "            | A    | B    | 3     | 3    | 800                   | Gr. 12           | 635             | 6                        | 10/74   | 33.6 | 7.6              | 5/75     | 35.5 | 7.0              | t                  | 7.57                | .001                |
| 6 1 0 1 5 7 2 0 |               | CST 63       | A    | B    | GS    | GS   | 1367                  | Gr. 9            | 1031            | 6                        | 10/74   | 20.2 | 6.8              | 5/75     | 24.5 | 7.6              | t                  | 20.15               | .001                |
| 6 1 0 1 6 7 2 0 |               | "            | A    | B    | GS    | GS   | 1635                  | Gr. 10           | 1468            | 6                        | 10/74   | 23.4 | 7.9              | 5/75     | 28.1 | 8.1              | t                  | 24.34               | .001                |
| 6 1 0 1 6 7 2 0 |               | "            | A    | B    | GS    | GS   | 750                   | Gr. 11           | 616             | 6                        | 10/74   | 26.9 | 9.0              | 5/75     | 32.6 | 8.7              | t                  | 19.97               | .001                |

- 1/ Identify Test Used and Year of Publication (MAT-58; CAT-70, etc.)
- 2/ Total number of participants in the activity
- 3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the last two digits of the component code.
- 4/ Total number of participants included in the pre and post test calculations.
- 5/ 1 = grade equivalent; 2 = percentile rank; 3 = Z Score; 4 = Standard score (publisher's); 5 = stanine; 6 = raw score; 7 = other.
- 6/ S.D. = Standard Deviation

- 7/ Test statistic (e.g., t; F; X<sup>2</sup>).
- 8/ Obtained value.
- 9/ Specify level of statistical significance obtained (e.g., p ≤ .05; p ≤ .01).



| Component Code  | Activity Code | (1)<br>Group I.D. | (2)<br>Test Used | (3)<br>Total N | (4)<br>Number Tested/<br>Analyzed | (5)<br>Participants Not Tested/<br>Analyzed |       | (6)<br>Reasons why students were not tested, or if tested, were not analyzed |      |      |     |      |     |    |    |
|-----------------|---------------|-------------------|------------------|----------------|-----------------------------------|---|-------|--|------|------|-----|------|-----|----|----|
|                 |               |                   |                  |                |                                   | N   | %     | A  | B    | C    | D   | E    | F   | G  | H  |
|                 |               |                   |                  |                |                                   | 6 0 8 1 5 7 2 0                             | Gr. 9 | CAT 70<br>Read.  | 2030 | 1810 | 220 | 10.8 | 75  | 60 | 25 |
| 6 0 8 1 6 7 2 0 | Gr. 10        | "                 | 2440             | 2330           | 110                               | 4.5   | 80    | 20   | -    | -    | 10  | -    | -   | -  |    |
| 6 0 8 1 7 7 2 0 | Gr. 11        | "                 | 2270             | 1777           | 493                               | 21.7  | 100   | 20   | 90   | 180  | 50  | 40   | -   | 13 |    |
| 6 0 8 1 6 7 2 0 | Gr. 12        | "                 | 2300             | 1672           | 628                               | 27.3  | 80    | 35   | 140  | 10   | 80  | 142  | 106 | 35 |    |
| 6 0 9 1 5 7 2 0 | Gr. 9         | CAT 70<br>Comp.   | 2030             | 1609           | 421                               | 20.7  | 75    | 60   | 25   | 20   | 30  | 181  | -   | 30 |    |
| 6 0 9 1 6 7 2 0 | Gr. 10        | "                 | 2440             | 2055           | 385                               | 15.8  | 80    | 20   | -    | -    | 50  | 230  | -   | 5  |    |
| 6 0 9 1 6 7 2 0 | Gr. 11        | "                 | 1220             | 1043           | 177                               | 14.5  | 43    | 10   | 30   | 70   | 14  | 10   | -   | -  |    |
| 6 0 9 1 6 7 2 0 | Gr. 12        | "                 | 400              | 157            | 243                               | 60.8  | 30    | 15   | 20   | -    | 55  | 90   | 25  | 8  |    |
| 6 0 9 1 5 7 2 0 | Gr. 9         | CAT 70<br>P.S.    | 2030             | 1576           | 454                               | 22.4  | 75    | 60   | 25   | 20   | 30  | 214  | -   | 30 |    |
| 6 0 9 1 6 7 2 0 | Gr. 10        | "                 | 2440             | 2026           | 414                               | 17.0  | 80    | 20   | -    | -    | 59  | 245  | -   | 10 |    |
| 6 0 9 1 6 7 2 0 | Gr. 11        | "                 | 1220             | 1044           | 176                               | 14.4  | 43    | 10   | 30   | 70   | 14  | 9    | -   | -  |    |
| 6 0 9 1 6 7 2 0 | Gr. 12        | "                 | 400              | 158            | 242                               | 60.5  | 30    | 15   | 20   | -    | 55  | 90   | 25  | 7  |    |
| 6 1 1 1 5 7 2 0 | Gr. 9         | STEP 69<br>S.S.   | 1367             | 1197           | 170                               | 12.4  | 50    | 40   | 15   | 10   | 10  | 45   | -   | -  |    |
| 6 1 1 1 6 7 2 0 | Gr. 10        | "                 | 1635             | 1312           | 323                               | 19.8  | 75    | 15   | -    | -    | 40  | 190  | -   | 3  |    |
| 6 1 1 1 6 7 2 0 | Gr. 11        | "                 | 1398             | 1017           | 381                               | 27.3  | 67    | 14   | 60   | 125  | 40  | 70   | -   | 5  |    |
| 6 1 1 1 6 7 2 0 | Gr. 12        | "                 | 1100             | 825            | 275                               | 25.0  | 30    | 15   | 20   | -    | 55  | 90   | 25  | 8  |    |

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.

(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).

(3) Number of participants in the activity.

(4) Number of participants included in the pre and posttest calculations found on item #30.

(5) Number and percent of participants not tested and/or not analyzed on item #30.

Reasons why students were not tested and/or analyzed: A=Dropped from program; B= Truant; C= moved; D= Transferred; E= Absent on test date(s); F= Incomplete test data; G= Graduated; H= Invalid test scores.

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| Component Code  | Activity Code | (1)<br>Group I.D. | (2)<br>Test Used | (3)<br>Total N | (4)<br>Number Tested/<br>Analyzed | (5)<br>Participants Not Tested/<br>Analyzed |       | (6)<br>Reasons why students were not tested, or if tested, were not analyzed |      |      |     |      |    |    |    |
|-----------------|---------------|-------------------|------------------|----------------|-----------------------------------|---|-------|--|------|------|-----|------|----|----|----|
|                 |               |                   |                  |                |                                   | N   | %     | A  | B    | C    | D   | E    | F  | G  | H  |
|                 |               |                   |                  |                |                                   | 6 1 0 1 5 7 2 0                             | Gr. 9 | CST 63<br>G.S.   | 1367 | 1031 | 336 | 24.6 | 65 | 50 | 20 |
| 6 1 0 1 6 7 2 0 | Gr.10         | "                 | 1635             | 1468           | 167                               | 10.2  | 50    | 15   | -    | -    | 20  | 80   | -  | 2  |    |
| 6 1 0 1 6 7 2 0 | Gr.11         | "                 | 750              | 646            | 104                               | 13.9  | 20    | 5  | 20   | 30   | 10  | 19   | -  | -  |    |
| 6 6 7 1 5 7 2 0 | Gr. 9         | SAT 72<br>READ.   | 180              | 154            | 26                                | 14.4  | -     | 9  | 7    | 10   | -   | -    | -  | -  |    |
| 6 6 7 1 6 7 2 0 | Gr.10         | "                 | 80               | 49             | 31                                | 38.8  | -     | 6  | 6    | 10   | -   | -    | -  | -  |    |
| 6 6 8 1 5 7 2 0 | Gr. 9         | SAT 72<br>MATH    | 180              | 150            | 30                                | 16.7  | -     | 9  | 7    | 10   | -   | -    | -  | -  |    |
| 6 6 8 1 6 7 2 0 | Gr.10         | "                 | 80               | 50             | 30                                | 37.5  | -     | 6  | 6    | 10   | -   | -    | -  | -  |    |
| 6 6 9 1 5 7 2 0 | Gr. 9         | CIAT<br>S.R.      | 180              | 142            | 38                                | 21.1  | -     | 9  | 7    | 10   | 4   | 8    | -  | -  |    |
| 6 6 9 1 6 7 2 0 | Gr.10         | "                 | 80               | 51             | 29                                | 36.3  | -     | 6  | 6    | 10   | 7   | -    | -  | -  |    |
| 6 6 9 1 5 7 2 0 | Gr. 9         | CIAT<br>S.S       | 90               | 64             | 26                                | 28.9  | -     | 5  | 4    | 6    | 2   | 5    | -  | 4  |    |
| 6 6 9 1 6 7 2 0 | Gr.10         | "                 | 30               | 18             | 12                                | 40.0  | -     | 2  | 2    | 4    | 2   | 2    | -  | -  |    |
| 6 6 9 1 5 7 2 0 | Gr. 9         | CIAT<br>SCI.      | 90               | 62             | 28                                | 31.1  | -     | 6  | 5    | 5    | 3   | 7    | -  | 2  |    |
| 6 6 9 1 6 7 2 0 | Gr.10         | "                 | 50               | 33             | 17                                | 34.0  | -     | 2  | 2    | 4    | 2   | 7    | -  | -  |    |

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.

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